

## Feed the Cow Liberally

She Is Least Wasteful When Given All She Will Use  
—Consider Her As a Milk-Producing Machine

By C. H. Eckles, Professor of Dairy Husbandry, College of Agri., U. of Mo.

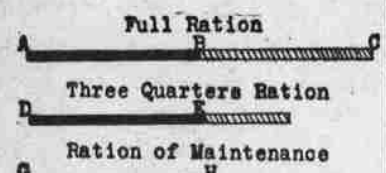
To maintain the condition of early summer is, in general, the great problem in winter feeding of dairy cows. It is entirely possible to maintain practically these summer conditions throughout the entire winter on any farm when the subject is properly understood and the necessary arrangements made.

An abundance of palatable food is one condition typical of summer feeding. On this point one of the most common mistakes is made in feeding cows. We should look upon the cow, in a way, as a milk-producing machine. We supply her with a certain amount of raw material in the form of feed, and this raw material is manufactured into milk. The same rule holds as in the running of any other manufacturing plant—it is run most economically near its full capacity.

Everyone who feeds cows should know, first of all, that the animal must use a certain portion of her food to maintain the body. This is the first requirement of the animal, and it is the first use to which it puts its food. This is called the ration of maintenance, and it is practically a fixed charge. That is, it is practically the same whether the animal is being utilized for maximum production or is merely kept without producing any milk at all.

It should be clear that after going to the expense of giving the animal the necessary amount to keep her alive it is the poorest economy to refuse to furnish the other 40 to 60 per cent, which she would utilize exclusively for milk production. On the average farm this is one of the common mistakes made.

The importance of liberal feeding for economical production can be easily understood from the following illustration:



The first line illustrates the proper feeding of a heavy-producing cow, which is usually the one underfed. The line A to C represents the total capacity of the animal for food, or a full ration. The first half, from A to B, represents the amount of food required to maintain the animal's body, or the ration of maintenance. The second half, from B to C, represents the portion of food used for the production of milk. In this case there is no fat being produced on the animal's body. The cow is supposed to be of such dairy quality that all the feed she can consume in excess of maintenance is used in milk production.

The next line represents what would happen if the feed of the animal was reduced one-fourth. The ration of maintenance remains practically the same as in the first case. The cut of one-fourth will be seen to come entirely on that available for milk production, and reduces that amount one-half.

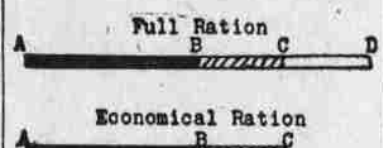
Suppose that the ration of such a cow be still further reduced to one-half of the full ration, or that required for maintenance alone, as represented by the third line. In this case the cutting down of the ration one-half would remove all available

feed for milk production. However, the animal would not quit producing milk at once. The milk-producing function is so strong that the cow will continue to produce milk for some time, even when the feed is insufficient, utilizing the reserve material which has been accumulated in the body in the past.

As a rule, all heavy-milking cows decline in weight for the first two or three weeks, and occasionally for ten weeks, after calving. This means that milk production has been in excess of feed supplied for that purpose. The same thing happens in the case of a cow that is not being fed a sufficient ration for the amount of milk she is producing. She may continue to produce considerable milk for a while by drawing on the reserve material of the body. As soon as this is exhausted the production of milk must come down to the ration available for that purpose, above the ration of maintenance.

How to Avoid Overfeeding. While the foregoing applies to one class of dairy cows, there is another class to which it does not apply, and applying it to this class would lead to serious mistakes in feeding from an economical standpoint. This group includes those of lower productive capacity, which are liable to be overfed, especially when they are in the herds of dairymen who realize the necessity of liberal feeding.

The proper feeding of this group of animals can be made clearer by the following illustration:



The line A to D represents the amount of feed that an animal of this class will consume. A to B represents the ration of maintenance. In this case, however, the capacity for feeding milk is not equal to the capacity of the animal for utilizing feed in excess of that required to maintain the body. The amount which the cow is capable of utilizing for milk production is represented by that portion of the line B to C, while the animal's appetite is equal to the total line A to D. This gives a surplus, C to D, which is not utilized for milk production, but which is used for storing fat on the animal's body.

We have the cow gaining in weight while she is giving milk. This gain in weight will be of no service as far as milk production is concerned, except that it is of some value as a reserve material. It is not economical or desirable to fatten dairy animals with the expensive feeds that are fed cows in milk. That portion of the feed represented by the line CD should be taken from the ration. This means reducing her feed to take off that amount used for storing fat on the body. In other words, to feed her only what she will utilize in milk production. This means feeding enough to maintain a practically uniform body weight.

In every large herd, where the amount fed is not carefully regulated, we find errors made in both these classes. We find the heavy-producing cows being underfed, and we find the light-producing cows being overfed and allowed to accumulate fat.

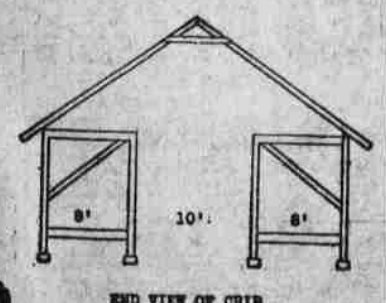
## BUILDING A CORN CRIB

PLAN FOR 2,000-BUSHEL CRIB WITH MACHINERY SHED.

By C. E. Brashear, College of Agriculture, University of Missouri.

A good corn crib is not only a convenience—it is a practical investment, as it saves grain from rotting and from rats. The following is the plan of a simple crib consisting of two parts with a driveway between.

Each part is 8 feet wide and 30 feet long and holds 1,000 bushels. There



is a 10-foot drive between. It may be made any length desired. A crib wider than eight feet has the circulation of air so reduced that there is danger of spoiling. Narrower than eight feet, the cost increases for cribs holding the same amount of grain, so that this is probably the best width for Missouri climate.

The posts rest upon concrete pillars. Successful Managers. Talking about successful managers, they can be numbered on one's hand. In the National League McGraw, Chance, Clarke and Bresnahan, are top-notchers. The American League also has four who can be considered as strictly first-class managers—Stahl, Griffith, Mack and Jennings.

San Francisco School Athletics. The San Francisco Board of Education voted \$3,000 for athletic purposes. Emphase Peixotto has been named superintendent of school athletics.

## THE DUTCH ARE FRIENDLY

American Travelers Welcomed by the Netherlanders.

Looked Upon as Kinmen—Hollanders Remember Important Part Played by Their Forefathers in the New World.

The Hague, Holland.—Recently, in a letter from Scotland I read that "Americans are unpopular in Europe." As far as Holland is concerned I cannot protest strongly enough against this statement. On the contrary, there is no foreign nation as popular in the Netherlands as America and there is no individual of any other nationality so well liked as the American.

The Dutch consider the Americans akin to themselves. They cannot forget that some of the eastern states were once known as New Netherland and that New York was first named New Amsterdam; that many of the leading Dutch families helped to colonize America; that most Dutch family names survive in some form or other on the other side of the Atlantic. There is scarcely a family that has not a "cousin in America" and the "American uncle" is unreservedly popular among all his relatives in Holland for all the thousands of dollars, real or imaginary, that some day he may leave to them.

The eyes of many a weary worker in Holland turn with longing toward America, that land of fabulous wealth in the same way that the Germans, during Holland's golden age, used to dream of Amsterdam, that city paved with gold. But, wiser than the German dreamer of old, the Hollander knows that gold is not to be picked up in the streets of the new world by the idlers, but must be gained by honest toil. The sons of many a Dutch farmer have found work and land and a permanent home in America, and when they return occasionally to visit the scenes of their childhood, these tell of the wondrous, progressive, energetic race across the sea, that they are part of their own blood, and so they widen the circle of sympathy for America, and the Americans. No one who has seen how one private American citizen, of Dutch lineage, it is true, but certainly a very American of the Americans, Theodore Roosevelt, was received by the people of Holland, can doubt for a moment the truth that Americans are popular.

But it is very noticeable in many other ways. See the people's faces light up in smiles when they hear that their traveling companion in a rail-



Fishing Fleet on Dutch Canal.

way journey is an American. Everyone is ready to point out places of interest to him, to help him in any difficulty and to hear his opinion about Holland. As a rule, Dutch people traveling and staying in hotels hold themselves stiffly aloof from others, but not from the American. These are privileged beings and are generally made much of, for there is something genial about them that seem to attract the less demonstrative nature of the Hollander. Why, even the American newspaper correspondents are popular in Holland and can obtain advantages denied to those of their colleagues of other nationalities, and even to the Dutch press itself. Perhaps the last is the strongest proof of any of America's popularity.

## VISITED HEAVEN IN DREAM

Girl Says She Spoke to Mother, Sisters and Brother in a Trance.

Chunky, Miss.—Physicians and psychologists are investigating the strange tale told by Miss Lulu Mae Satterfield, twenty years old, who awoke from a trance which she had entered upon several weeks ago, and after summoning about fifty relatives and friends to her bedside told a graphic story of how she had visited heaven during her long sleep and while there had talked with her mother, her sister and two brothers, all of whom have been dead for some time.

Miss Satterfield was in perfect health when she awoke from her trance, and declared that she felt refreshed, although too weak from the long fast to leave her bed. Dr. William Walring, the physician who attends her family, was at her side when she told her strange experience and noted every word carefully.

The girl said that after talking with her mother, who died a year ago, she had been called before her Heavenly Father and ordered to return to earth and tell mankind of the glorious future that awaited them, urging them to live good lives.

The girl's discourse was perfectly coherent and she talked with such deep conviction that most of her hearers were in tears when she concluded. The young woman's father is the Rev. M. Satterfield, a Baptist minister, formerly of this town, but now occupied with a charge at Poplar Springs, five miles southwest of Hickory. The preacher declares that his daughter has always been devout and pious to the extreme.

## MADE A CLEAN JOB OF IT

First Time Old Gentleman Had Eaten a Crab and He Left Nothing on the Dish.

A jolly old boy, from the Midlands entered into one of the hotels at the seaside, and, seeing on the slab on the right a crab dressed on the shell with legs, claws and pincers ranged round, said to the landlady:

"What d'ye call that?"

"Crab," was the answer.

"Looks good. I'll have 'un; and give us a pint o' ale."

Bread and butter was added and the dinner left to his dinner. In about an hour the genial landlady entered the dining-room to see if his guest was getting on all right. He found him chawing up the last claw, the chawer red in the face but beaming.

"Like the crab, sir?"

"Yes; he was capital. I never tasted one afore. But I think you baked 'un a little too long; the crust was hard. Let's have another pint."

He had eaten the lot—shell, claws and all complete.—London Tit-Bits.

## RASH SPREAD TO ARMS

759 Roach Ave., Indianapolis, Ind.—"At first I noticed small eruptions on my face. The trouble began as a rash. It looked like red pimples. In a few days they spread to my arms and back. They itched and burned so badly that I scratched them and of course the result was blood and matter. The eruptions festered, broke, opened and dried up, leaving the skin dry and scaly. I spent many sleepless nights, my back, arms and face burning and itching; sleep was purely and simply out of the question. The trouble also caused disfigurement. My clothing irritated the breaking out."

"By this time I had used several well-known remedies without success. The trouble continued. Then I began to use the sample of Cuticura Soap and Ointment. Within seven or eight days I noticed gratifying results. I purchased a full-sized cake of Cuticura Soap and a box of Cuticura Ointment and in about eighteen or twenty days my cure was complete." (Signed) Miss Katherine McCallister, Apr. 12, 1912.

Cuticura Soap and Ointment sold throughout the world. Sample of each free with 32-p. Skin Book. Address post-card "Cuticura, Dept. L, Boston." Adv.

## ENOUGH TO MAKE HIM WILD.



Manager—Yes, the old farmer was a little skeptical about our wild man really being wild, but I satisfied him. Fat Man—You did? How?

Manager—Why, I told him the wild man was a bigamist who once had 16 wives.

## JUDGE CURED, HEART TROUBLE.

I took about 6 boxes of Dodds Kidney Pills for Heart Trouble from which I had suffered for 5 years. I had dizzy spells, my eyes puffed, my breath was short and I had chills and back ache. I took the pills about a year ago and have had no return of the palpitations. Am now 63 years old, able to do lots of manual labor, am well and hearty and weigh about 200 pounds. I feel very grateful that I found Dodds Kidney Pills and you may publish this letter if you wish. I am serving my third term as Probate Judge of Gray Co. Yours truly, PHILIP MILLER, Climarron, Kan.

Correspond with Judge Miller about this wonderful remedy.

Dodds Kidney Pills, 50c. per box at your dealer or Dodds Medicine Co., Buffalo, N. Y. Write for Household Hints, also music of National Anthem (English and German words) and recipes for dainty dishes. All 3 sent free. Adv.

## His Mistake.

After the services were over, one of the congregation turned to his wife and said:

"On my way to church I picked up a button and put it in my change pocket, where I had a quarter."

"Gracious, my dear!" anticipated his wife, very much horrified. "And you dropped it into the collection basket by mistake?"

"No, confound it!" replied her husband, "I put it in the quarter."—Judge.

## Sympathetic Affliction.

"Don't you think Jack ought to feed that cold? He is a little hoarse."

"He is—with hay fever."

## Wily Wooer.

Ardent Suitor—"I lay my fortune at your feet." Fair Lady—"Your fortune! I didn't know you had one." Ardent Suitor—"Well, it isn't much of a fortune, but it will look large beside those tiny feet."—Boston Transcript.

Dr. Pierce's Pleasant Pellets act just 40 years ago. They regulate and invigorate stomach, liver and bowels. Sugar-coated tiny granules. Adv.

Some married women want shorter hours and more money.

## ROYALTY WELCOMES THE AMERICAN SETTLER

HIS ROYAL HIGHNESS, THE DUKE OF CONNAUGHT, WELCOMES AMERICANS TO CANADA.

It was a happy speech, that on that beautiful October day, the Duke of Connaught, Governor-General of Canada, made at Macleod, Alberta. It was an opportune speech, heartfelt and resonant with good fellowship. And, as it was especially intended for American ears, the audience, comprised largely of so many American settlers in Canada, the time and place could not have been better chosen.

It was in reply to an address of welcome tendered to him at the pretty city of Macleod, with the foothills of the Rockies as a setting, and the great wheat fields between, and in fact all around the place as the foreground, that His Highness, true to the best interests of the country and to those of the Americans who choose to make Canada their home, said in part:

"I am well aware that among those whom I am now addressing, there are a very great proportion who were not born under the British flag. Most of these will have realized by now that residence under that flag implies no disabilities. All we ask is that the laws of Canada should be obeyed."

"With this provision every one is free to come and go, to marry, to live and to die as seems best to him, and as it pleases Providence."

"We bring no pressure to bear on anyone to adopt the Canadian nationality, for we do not value citizenship which is obtained under compulsion."

"Our American cousins are welcome from over the border. Thrice we welcome our Canadian and British brothers, who return to the Union Jack, after living under the Stars and Stripes."

"History is repeating itself. For many years hundreds of young Britishers have sought fortune in the western States. Time has brought about a change, and the tide has set in the other direction, bringing across the frontier numbers of our neighbors to whom we are glad to return hospitality."

"One of the chief dispensers of such hospitality in proportion to its population has, as we have said, changed its character from an important cattle town to a thriving wheat producing area."

"What it has lost from the picturesque point of view, it has gained in the material side, and I wish, in conclusion, to express the hope that the prosperity which has evinced itself here for the past ten years, may continue unabated in the future."

There is no reason why at a hundred places on this extensive, instructive and interesting trip of His Royal Highness he might not have expressed himself in the same terms, and on each occasion, addressed large gatherings of Americans who are now settled on the prairies of Western Canada.—Advertisement.

## Not Needed.

While a traveling man was waiting for an opportunity to show his samples to a merchant in a little backwoods town in Missouri, a customer came in and bought a couple of night-shirts. Afterwards a long, lank lumberman, with his trousers stuffed in his boots, said to the merchant:

"What was them 'ere that feller bot?"

"Night shirts. Can I sell you one or two?"

"Naup, I reckon not," said the Missourian; "I don't set around much o' nights."—Lippincott's.

## Similarly Minded.

The village tailor only received occasional orders from the vicar for such articles as hats, collars, or handkerchiefs. "You see," remarked the vicar one day, having called with his usual order, "when I want a suit I go to London. They make them there."

Calling again a few days later, the vicar remarked that he had not seen the tailor at church lately.

"No, replied the tailor, "when I want to hear a good sermon I go to London; they preach them there."

## Counsel of Despair.

"I want a piece of meat without any bone, fat or gristle," said the bride, on her first trip to market. "Yes, ma'am," replied the butcher. "I would suggest that you take an egg."

## After Dinner Joke.

In the great Pecos valley apple country of New Mexico the latest arrival is always asked:

"What is worse than biting into an apple and finding a worm?"

He is stumped. They tell him, "Finding half a worm."

## Equivocal.

"Thrifty habits are your friends."

"Yes, I suppose a man nowadays is known by the bank accounts he keeps."

Sometimes a burglar leaves little to be desired.

## Important to Mothers.

Examine carefully every bottle of CASTORIA, a safe and sure remedy for infants and children, and see that it bears the Signature of *Dr. J. C. Fitch* In Use For Over 30 Years. Children Cry for Fitch's Castoria

Marriage may either form one's character or reform it.

## JUST WHAT THEY EXPECTED

Committee Made No Mistake When They Looked for Almost Inevitable Comment.

A committee of investigating scientists approached a lady.

"Madam," said Professor Prewins, the spokesman, offering her a magnificent chrysanthemum of rare and lovely hue. "Madam, permit me to present this flower to you as a token of our high regard."

She clasped the splendid blossom in her lily white hand.

Breathlessly the committee waited her reply.

"How beautiful it is," she answered. "What an exquisite shade of purple! I should love to have a dress of that color."

Doctor Prewins nodded knowingly to the committee, as if to say, "I told you so."

The committee winked to the professor and whispered, "You win."

## PALMISTS, ATTENTION.



She—Do you think that big hands are a sign of generosity?

He—Sure; the generosity of nature.

## Her Name Was Not Polly Ticks.

During the late campaign an Illinois candidate for the legislature was driving through the country, seeking votes among the farmers, when he met a young man in farmer's garb, walking by the roadside.

Having in mind a prospective vote, he stopped his horse, and saluting him in a familiar manner, inquired:

"Are you paying any attention to politics nowadays?"

The young man stopped, looked at him suspiciously, and drawled out:

"No, stranger; that don't happen to be my gal's name; but if it was, I wouldn't think it was any of your durned business."

This ended the interview as well as the prospect.

## In New York.

First Prison Official—We'll have to stop giving permits to people to go in and see the prisoners.

Second Prison Official—Why so?

First Prison Official—Too much confusion. They keep getting in the way of the fellows who are escaping.—Puck.

## A Tender Point.

"What got you into trouble with this policeman?" demanded the New York Judge.

"Just trying to ask him a civil question, your honor," said the visitor, "nothing more."

"What was the question?"

"I just asked him when the next official murder would be dragged off."

## Terms.

"There is one thing I've been wondering about."

"What's that?"

"How racing men take joy rides in a sulky."

## Explained.

"Why do epigrams always begin, 'Here lies—'?"

"Because the majority of them do."

## CURES ITCHING SKIN DISEASES.

Cole's Carbolic Acid stops itching and makes the skin smooth. All druggists. 25 and 50c. Adv.

## His Authority.

"I thought you told me that man was a golden-mouthed speaker."

"Well, I had it from his dentist."

## Mrs. Winslow's Soothing Syrup for Children.

Teething, softens the gums, reduces inflammation, allays pain, cures wind colic, &c. A bottle 10c.

The more the trusts want the less the common people get.

## Shipping Fever

Influenza, plunk eye, epistaxis, distemper and all nose and throat diseases cured, and all others, no matter how "exposed." Keep from having any of these diseases with SPOHN'S LIQUID DISTEMPER CURE. Three to six doses often cure a case. One 50-cent bottle guaranteed to do so. Best thing for broad masses. Acts on the blood. 50c and \$1 a bottle. 50c and \$1 a dozen bottles. Druggists and hardware shops. Distributors—A. L. WHOLESALE DRUGGISTS.

SPOHN MEDICAL CO., Chemists and Bacteriologists, Gothen, Ind., U. S. A.

## HOW GIRLS MAY AVOID PERIODIC PAINS

The Experience of Two Girls Here Related For The Benefit of Others.

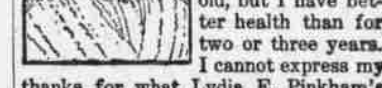
Rochester, N. Y.—"I have a daughter 13 years old who has always been very healthy until recently when she complained of dizziness and cramps every month, so bad that I would have to keep her home from school and put her to bed to get relief."

"After giving her only two bottles of Lydia E. Pinkham's Vegetable Compound she is now enjoying the best of health. I cannot praise your Compound too highly. I want every good mother to read what your medicine has done for my child."—Mrs. RICHARD N. DUNHAM, 311 Exchange St., Rochester, N. Y.

Stoutsville, Ohio—"I suffered from headaches, backache and was very irregular. A friend advised me to take Lydia E. Pinkham's Vegetable Compound, and before I had taken the whole of two bottles I found relief. I am only sixteen years old, but I have better health than for two or three years. I cannot express my

thanks for what Lydia E. Pinkham's Vegetable Compound has done for me. I had taken other medicines but did not find relief."—Miss CORA B. FOSNAUGH, Stoutsville, Ohio, R. F. D., No. 1.

Hundreds of such letters from mothers expressing their gratitude for what Lydia E. Pinkham's Vegetable Compound has accomplished for their daughters have been received by the Lydia E. Pinkham Medicine Company, Lynn, Mass.



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is trifling. It is spread over a number of years. Long after the cost is forgotten the recollection of quality remains.

From the Best Stores Everywhere

"The Pen That Everybody Uses"

Make the Liver Do its Duty

Nine times in ten when the liver is right the stomach and bowels are right.

CARTER'S LITTLE LIVER PILLS

gently but firmly compel a lazy liver to do its duty.

Cures Constipation, Indigestion, Sick Headache, and Distress After Eating.

SMALL PILL, SMALL DOSE, SMALL PRICE.

Genuine must bear Signature

W. D. Wood

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If you feel "out of sorts," "run down" or "out of the blues," suffer from kidney, bladder, nervous diseases, chronic weakness, slowness of action, indigestion, etc., write for a FREE BOOK. It is the most instructive medical book ever written. It tells all about these diseases and the remarkable cures effected by the New French Remedy, CARTER'S LITTLE LIVER PILLS. No. 1, No. 2, No. 3, and you can decide for yourself if it is the remedy for your ailment. Don't send a cent. It is absolutely FREE. No "follow-up" circulars. Dr. J. C. Fitch, 100, Haverstock Rd., Hampstead, London, Eng.

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For Six Months. It is worth a cent to any man desiring to invest any money, however small, who has invested money unprofitably or who can save or more money, but who hasn't found the art of investing for profit. It demonstrates the real earning power of money, the knowledge of the market and the value of the money. It reveals the enormous profits bankers make and shows how to make the same profits. It explains how to get rich by investing in the market. It is a new book. I'll send it to you free. Write for it. J. C. Fitch, 100, Haverstock Rd., Hampstead, London, Eng.

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